

LECTURE 3

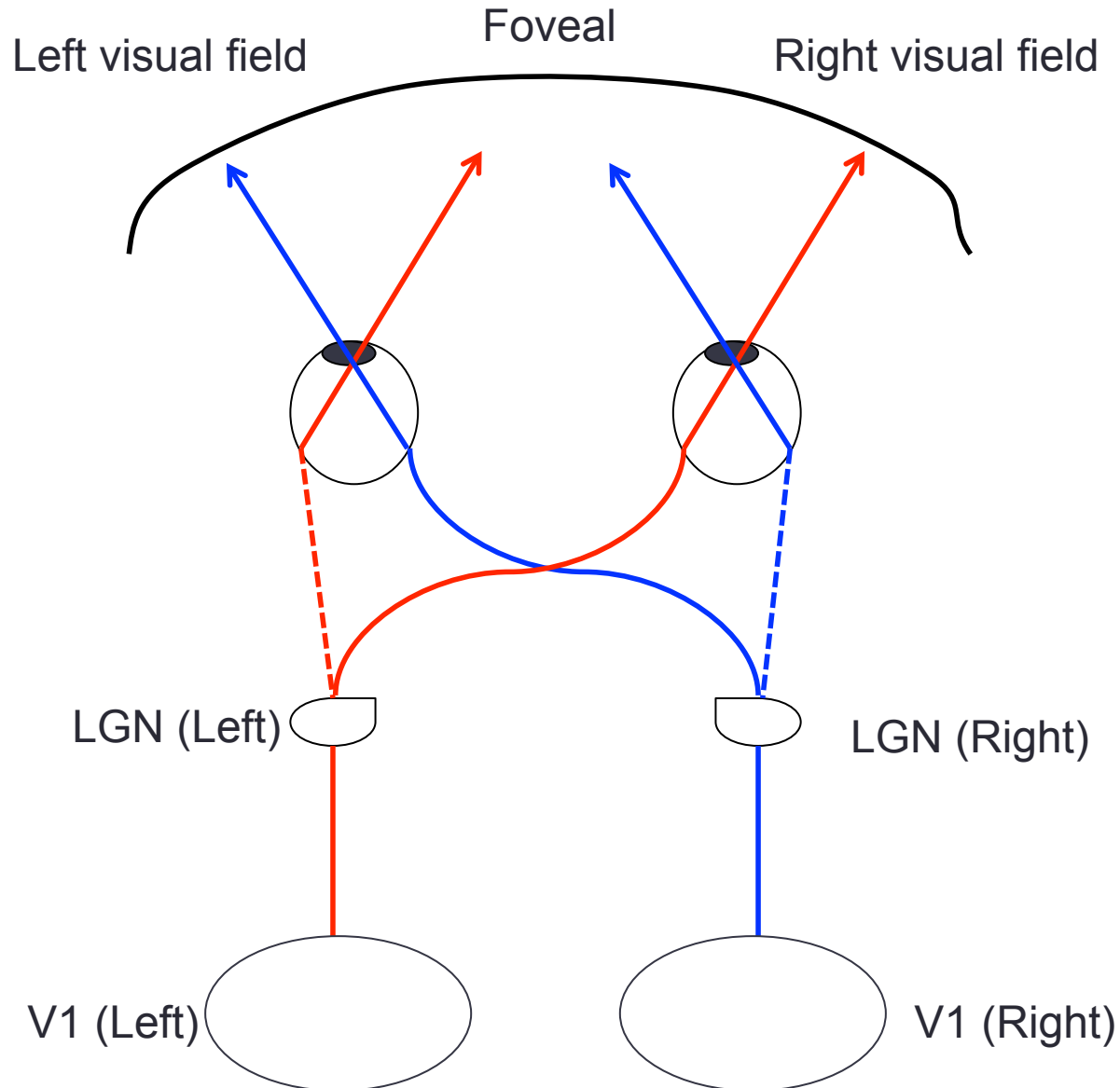
Announcements

Visual pathway

Writing a research paper

Change detection lab

Visual pathway



Think, pair, share

- Design a study to test the following hypothesis:
 - Language production occurs in the left hemisphere but not the right.

Cognition research

- Find a question/topic
 - Are there differences in verbal memory between the two hemispheres?
- Determine your hypothesis
 - Based on past literature (need to do a literature search)
 - Left better for language memory
 - Larger Broca's area
- Design an experiment to test your hypothesis
 - What you did last class
 - fMRI, bilateral displays with different behavioral responses, etc.
- Run experiment
- Write up your results

Cognition research

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Research paper

- Title
- Abstract
- Introduction (why?)
- Methods (how?)
- Results (what?)
- Discussion (so what?)
- References
- Appendix (not always necessary)

Introduction

- Literature search
 - Use google scholar
 - Do not pay for papers! You get them free through the school library
- Set up the reason why your research is important
 - Here is what other labs have done on the topic
 - Here is what they missed/here is a hole in the literature
 - This is why my experiments need to be run



Methods – 3 sections

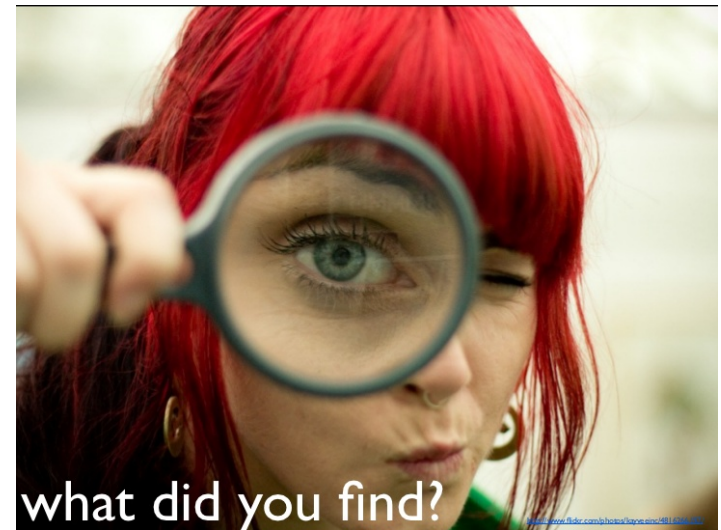


HOW?

- **Participants**
 - How many, Age, Gender
 - Other important information
 - If studying language, are they all native English speakers?
- **Materials**
 - What was the experiment run on? (computer)
 - What buttons did they press
 - How large were the stimuli
 - Everything you would need to know to run the experiment yourself
- **Procedure**
 - Step by step process of how the experiment was run

Results

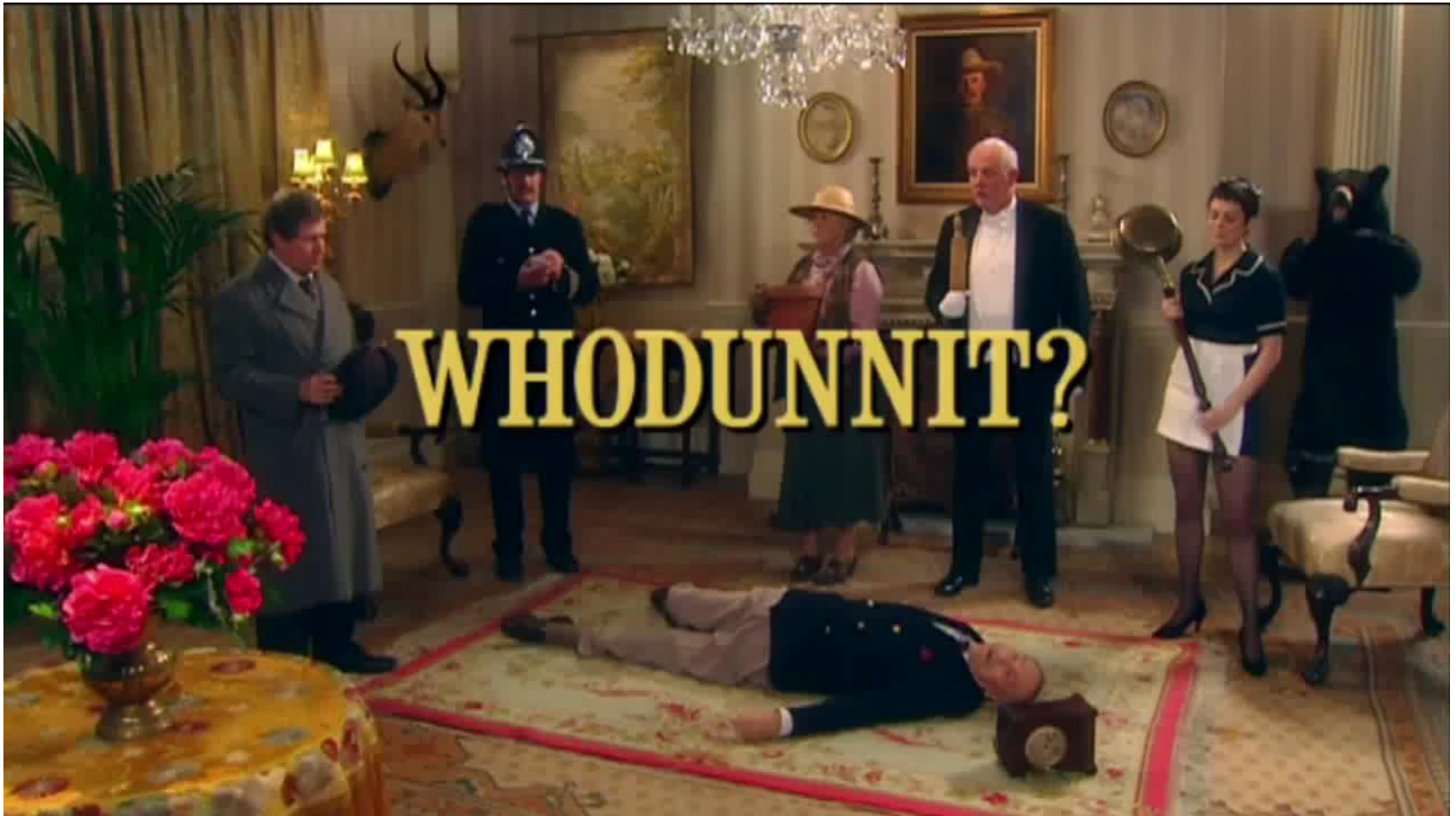
- Write up what you found
 - Never say 'these results prove my hypothesis'
 - Science can never prove anything, only support or reject hypotheses
- STATISTICS
 - Do your statistics in SPSS (or others if you want)
 - Write up your stats in APA format.



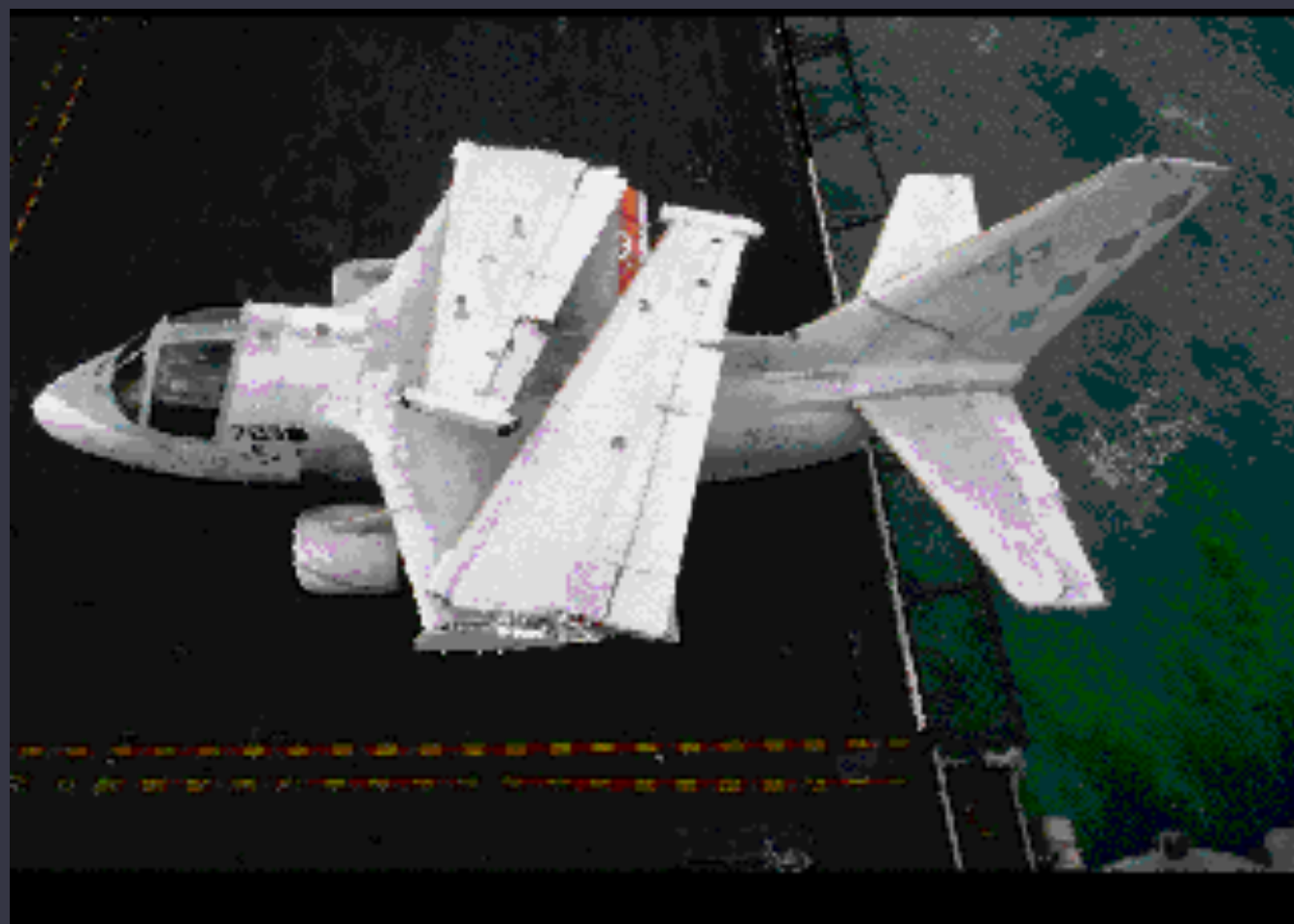
Reflection Paper 1

- Download 'SampleLab_Problems' from the course website
- Critique the writing
 - Submit a one page summary of the issues that you found and how to fix them.

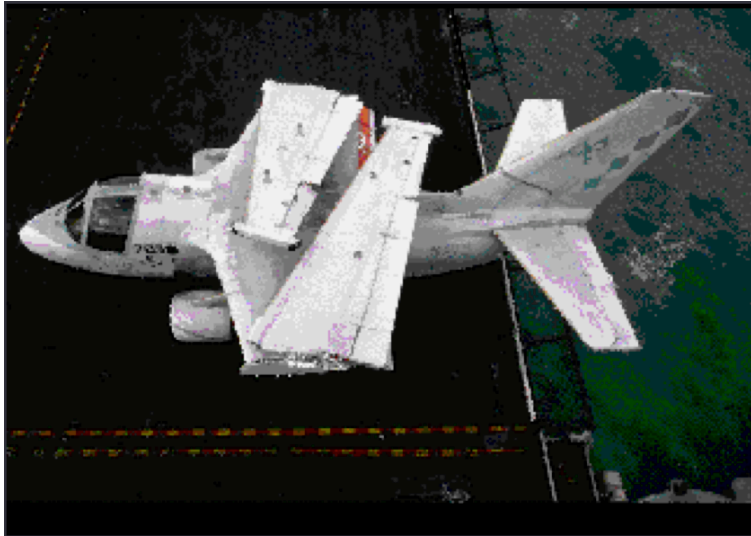
Change blindness







What happened?



VS



Flicker paradigm

Non-flicker paradigm

- Harder to detect scene changes in flicker paradigm
- Flicker paradigm displays phenomenon of **CHANGE BLINDNESS** (inability to detect obvious change)
- **BLANK SCREEN** is the difference between two paradigms

Lab 1

- Complete the experiment 'Change Detection' on CogLab